ABSTRACT

The purpose of the present study was to determine if a relationship exists between skilled and novice music teachers’ nonverbal behaviors and their perceived effectiveness and rapport. Participants (N = 108) viewed videotapes of four different choral teachers. Two teachers were proficient and experienced, and two were novice. Participants viewed these teachers in the following counterbalanced settings: (a) an accomplished teacher conducting a fine choral ensemble, (b) a novice teacher conducting a poor choral ensemble, (c) an accomplished teacher conducting a poor choral ensemble, and (d) a novice teacher conducting a fine choral ensemble. In order to determine the effectiveness of the teachers’ nonverbal behaviors, participants observed the teachers under one of four conditions: audio/video, audio-alone, video-alone, and transcript-only of the teaching episodes. Participants wrote observational comments and gave each teacher a numeric rating for rapport and effectiveness. Results of data analysis indicated that the evaluations of rapport and effectiveness were highly related (r = .85). Except for teacher #1 in the transcript-only condition, expert teachers were rated higher than novice teachers. The positive/negative comment ratio was generally reflective of the evaluative score. Both quantitative and qualitative analyses indicate that teachers’ ratings and comments were influenced by the evaluators’ ability to observe the teachers’ nonverbal behaviors under the various conditions, and that the greatest percentage of expert teachers’ comments were related to nonverbal behaviors. In all but the transcript-only condition for one teacher, effective teaching (as determined by previous research using the same stimuli) was evaluated as such.
INTRODUCTION

Much of what we communicate in a classroom is through nonverbal means. Sending appropriate nonverbal signals, as well as recognizing and interpreting the nonverbal signals of others, are essential features of good teaching. The importance of understanding nonverbal communication and its role in human interactions was made clear by the findings of pioneer scholar and researcher Abraham Mehrabian (1981). He found, in experiments dealing with the communication of feelings and attitudes, that 93% of what is conveyed is through nonverbal means—55% through facial expression and 38% through tone of voice—leaving only 7% to be communicated through verbal expressions; this finding indicates that how something is said is often more important than what is said. Nonverbal cues then are central to interpersonal relationships—including those between teacher and student. Most people, however, give little thought to what they communicate nonverbally. Indeed, much of what we communicate nonverbally is without intent (Knapp & Hall, 2006). Nevertheless, the messages are sent, and they have important implications regarding our interactions in the music classroom.

Any message between people has at least three dimensions. The message has content, it is presented in a specific context or situation, and it indicates the relationship between the persons sending and receiving the message (Remland, 2004). The first dimension, the message content, is usually conveyed verbally, although for an ensemble director, the message content is often conveyed nonverbally through the use of conducting gestures. The second dimension of a message is conveyed nonverbally by placing the verbal message in a specific place or context—in music teaching, generally the music classroom or rehearsal hall. The third dimension of a message, the relationship between the sender and receiver, is also conveyed nonverbally through facial expression, eye contact, body language, and gestures. Nonverbal cues are not only important to those individuals within a relationship, but also in regard to how others perceive the relationship. It is the last dimension of the message that is most closely related to perceived teacher effectiveness and rapport.

The task that falls to researchers of nonverbal behaviors has been to discover the unwritten rules of communicating without words. Researchers have found that classroom teachers’ nonverbal behaviors are related to student evaluations and to rapport (Ambady & Rosenthal, 1993; Anderson & Anderson, 1982; Baringer & McCroskey, 2000; Guerrero & Miller, 1998; Hamann, Lineburgh & Paul, 1998). For conductors, studies have shown that modes of nonverbal communication—such as posture, eye contact and facial expression—affect an ensemble’s perception of the conductor’s ability even before the rehearsal begins (Fredrickson, Johnson, & Robinson, 1998; Julian, 1989). Nonverbal behaviors have also played a role in conveying teachers’ expectations of students (Babad, 1992; Chaikin, Sigler, & Derlega, 1974). In one frequently cited study, Chaikin, Sigler and Derlega (1974) examined teachers’ nonverbal behaviors toward a student described as bright, one described as dull, and another for whom no description was given. They found that teachers had more eye contact with, smiled more, leaned forward more, and nodded more toward the child described as bright.

A number of researchers have examined the effects of teachers’ or conductors’ appearances on others’ perceptions of their competence or effectiveness (VanWeelden, 2002; Wapnick; Darrow, Kovacs & Dalrymple, 1997; Wapnick, Kovacs, & Darrow, 1998; Wapnick, Kovacs-Mazza, & Darrow, 2000). VanWeelden (2002) examined whether a conductor’s body type played a role in the evaluation of the conductor and the ensemble’s performance, as well as whether or not a relationship existed between the ensemble’s performance rating and the conductor’s physical characteristics such as posture, eye contact and facial expression. While there was no significant correlation between body type and performance rating, moderate to moderately high relationships were found between the ensemble’s performance scores and the conductor’s posture, facial expression, and overall conductor effectiveness. Wapnick, et al., (1997, 1998, 2000) found that attractiveness, dress, and stage behavior had important implications for the performance evaluations of vocalists, violinists, and even child pianists. These researchers also found that attractiveness is generally a more potent variable for women than for men.

A number of researchers have examined the relationship between teachers’ immediacy behaviors and students’ perceptions of their effectiveness (Anderson & Anderson, 1982; Guerrero & Miller, 1998; McCloskey & Richmond, 1992). Their research indicates that, when students associate immediacy with their teacher, they are more likely to rate the teacher and the course highly. Immediacy behaviors refer to one’s use of space, gaze, and touch. Immediacy may be reflected in a teacher’s proximity to students, leaning in, eye contact, shaking hands or high-fives, smiling, and tone of voice. Such nonverbal behaviors are generally described as liking behaviors (Remland, 2004).

One study emphasized the importance of teachers’ nonverbal behaviors, and how quickly teachers can be judged based upon these behaviors. Ambady and Rosenthal (1993) had students observe 10-second clips of college teachers without sound and compared their evaluations of the teachers to students’ end-of-the semester evaluations of the same teachers. There was a strong positive correlation between students’ summative end-of-the semester evaluations and those of students who had observed the teachers for only 10 seconds and without sound. Ambady and Rosenthal (1993) also found that the teachers’ 10-second video-only evaluations were similar to their principals’ evaluations of them, and lastly, that they were similar to evaluations based on observation clips only five seconds and two seconds long. These results suggest that teachers’ nonverbal behaviors can quickly and accurately reflect the effectiveness of their teaching to persons who know them well, and to those who do not know them at all.

In studying the nonverbal behaviors of expert and novice music therapists, Cevasco and Jones (2007) found that expert music therapists used more nonverbal behaviors than novice music therapists in the same clinical settings. They found that professional music therapists had greater facial affect and stayed in closer proximity to clients than did student music therapists. These findings and others cited above suggest that use of nonverbal
behaviors, particularly those defined as immediacy behaviors, may be developmental, and may affect perceptions of teachers’ effectiveness and rapport. The purpose of the present study was to determine if a relationship exists between skilled and novice music teachers’ nonverbal behaviors and their perceived effectiveness and rapport with students.

**METHOD**

**Participants**

Music education and music therapy majors (N = 108) from one Southern and two Midwestern universities volunteered to serve as evaluators. Males (n = 31) and females (n = 77) participated as evaluators and were assigned to one of four evaluation conditions: audio and visual (n = 24), audio-only (n = 26), visual-only (n = 31), or transcript-only (n = 27).

**Stimulus Tape**

Four individuals were invited to serve as stimulus teachers for this project. Two teachers were young women who were accomplished choral conductors in public school settings. The other two women were undergraduate music education students with no previous experience conducting a choral ensemble, with only limited experience rehearsing instrumental ensembles. All four were instructed to dress professionally and were matched on the basis of attractiveness in order to control for such effects (Wapnick, Ryan, Lacaille, & Darrow, 2004).

Each teacher was given one of four pieces to rehearse. Each of the four pieces was equivalent in difficulty. The teachers were asked to plan a single rehearsal that would advance the chorus from reading the piece to being able to sing it musically within a time limit of 22 minutes. Each teacher rehearsed her piece on two separate occasions; once with a highly proficient choir in a university school of music, and a second time with a lab choir consisting of music education and music therapy majors, many of whom had not previously sung in an organized chorus. All eight rehearsals were videotaped from multiple locations, and the most interactive five-minute segment of the rehearsal was used to create the stimulus for the rehearsal event. Excerpts were dubbed onto a master stimulus tape with inserts of three minutes of silence between each teaching excerpt. The total stimulus tape was 29 minutes in length.

**Procedures**

Evaluators observed the teachers and evaluated them on the basis of their rapport with the ensemble and with regard to their perceived effectiveness. Their evaluations were performed under one of the four conditions: audio and video, audio-alone, video-alone, or transcript-only. Evaluators assigned the expert and novice teachers an overall rating for perceived rapport (ranging from 1—no rapport to 100—exceptional rapport) and an overall rating for effectiveness using the same scale. Evaluators were also asked to provide comments related to their ratings. All numerical ratings were entered into SPSS for quantitative analysis, and all written comments were transcribed into a Word file for qualitative analysis.

**RESULTS**

**Quantitative Analysis**

Participants (N = 108) evaluated the excerpts in terms of teachers’ rapport and perceived effectiveness. The overall rapport rating for teachers (on a 100-point scale) was 59.11 (SD = 22.71). The overall rating of teachers’ perceived effectiveness was 61.95 (SD = 23.60). The correlation between the two dependent measures was r = .85 (p < .001). This finding led the researchers to suspect that perhaps these two variables were not completely independent of one another.

A general linear MANOVA was completed, examining the effects of experimental group (video/audio, audio-only, video-only, transcript-only), teacher observed (novice, expert), and gender of the evaluator on rapport and effectiveness ratings of the teachers. No significant main effects were found for group or gender, but significant effects were found for teacher for both rapport (F(3, 394) = 23.84, p < .001, n² = .154) and for perceived teacher effectiveness (F(3, 394) = 47.70, p < .001, n² = .266). There was also a significant two-way interaction between the group and teacher observed variables for both rapport (F(9, 394) = 6.87, p < .001, n² = .136) and for perceived teacher effectiveness (F(9, 394) = 6.93, p < .001, n² = .137). These interactions can be seen in Figures 1 and 2. Generally, it can be seen that the expert teachers were rated (overall) significantly higher than the novice teachers with one teacher being, by far, evaluated the poorest across the board (see Table 1).
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Effectiveness and Rapport

Audio/visual group was relatively evenly split between verbal and nonverbal comments, and the audio-only and transcript-only evaluators commented almost exclusively on verbal aspects of the teaching episode (see Table 2).

Table 2
Post Hoc Results of One-Way ANOVA Indicating Percentage of Nonverbal comments by group for each Independent Measure.

<table>
<thead>
<tr>
<th>Rapport</th>
<th>Visual</th>
<th>Audio &amp; Transcript</th>
<th>Audio Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of Nonverbal Comments</td>
<td>91</td>
<td>41</td>
<td>4</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Visual</td>
<td>Audio &amp; Transcript</td>
<td>Audio Only</td>
</tr>
<tr>
<td>Percent of Nonverbal Comments</td>
<td>83</td>
<td>48</td>
<td>4</td>
</tr>
</tbody>
</table>

Underline indicates no significant difference.

Qualitative Analysis
Evaluator comments were qualitatively analyzed for trends and patterns. In general, the expert choral teachers received stronger comments regarding their nonverbal behaviors than novice teachers, regardless of the experience level of the choir. These comments on the expert teachers emerged in both the rapport and effectiveness categories. By virtue of what they had to evaluate, responses to nonverbal behavior were particularly apparent in the comments associated with the video-only condition. Examples of comments about the expert teachers from the video-only condition include: “Her hand gestures, facial expressions, and body language made it very easy to understand what she was communicating,” “Body language and hand gestures—good. I could understand what she wanted the choir to do.” These comments are markedly different than those from the same group of evaluators regarding the novice teachers’ nonverbal behaviors: “Shows no dynamics, phrasing or expression,” “Only beats time, doesn’t show expression,” “She looks bored and so do they.”

An examination of the evaluator comments in the transcript-only condition provides interesting insight into the importance of nonverbal behaviors in choral conducting. Teacher #1, an expert teacher working with an advanced choir, received generally positive remarks from the evaluators who would see what she was doing, and could hear the result-
ing choral product. Teacher #4, a novice teacher working with an advanced choir, was not reviewed well by those who could see and hear her session. However, in the transcript-only condition, when only the written word was available (reflecting very little nonverbal communication), the novice teacher outscored the expert. It would appear that an expert teacher, working with a knowledgeable choir, communicates much of what s/he wants through nonverbal behaviors, rather than overt instruction. This finding is confirmed by a comparison of the evaluation of the two expert teachers in the transcript-only condition. The expert teacher working with the novice choir was required to communicate her expectations and direction verbally. In comparison, the advanced choir appears to have responded better to the expert teacher's nonverbal communication, which does not translate as well in a transcript as the explicit verbal instruction needed by the novice choir.

A topic upon which a surprising number of evaluators chose to remark is that of professional dress. Their comments are particularly interesting when considered in chronological order. Only a few evaluators noted the dress of teacher #1, and their comments were positive: “Dressed very professionally [and] choir responded to her professional[ism] by maintaining good posture.” However, evaluator remarks make it clear that teacher #2 was not dressed as appropriately: “Dress unprofessional, less inclined to be taken seriously.” “Not dressed as a leader, just as ‘one of the kids.’” After their experience with teacher #2, the evaluators then commented on the appropriateness of the clothing of teachers #3 and #4 to a greater extent than they did teacher #1: “Love her outfit!” “Teacher dressed ok” (teacher #3); “Teacher is dressed professionally,” “Professional dress!” (teacher #4). Clearly, the clothing choice of the second teacher brought the issue to the attention of the evaluators, who then focused on this aspect of the subsequent teachers’ nonverbal communication.

These comments are important, not just because the evaluators felt the need to remark on the teachers’ professional dress (or lack thereof), but because they also speculate on its effect on both rapport and effectiveness. The quotations above, and others, indicate the evaluators’ perception that a choir might not respect a conductor who is not dressed professionally. One evaluator commented that teacher #2’s casual clothing made it appear that she “does not look as professional or serious about [the] rehearsal as she could.” Another noted, “This teacher was not professionally dressed and this may have affected the interaction and comfort level of the group.” These comments are in direct contrast to the multiple comments regarding the professionalism of the other three teachers.

**DISCUSSION**

Expert teachers in this study were evaluated more highly than novice teachers, except for the evaluation of teacher #1 under the transcript-only condition. This finding would seem to indicate that whether one were just to hear, just to see, or both hear and see good teaching, it is easy to differentiate it from poor teaching. It also means that good teachers not only express themselves differently than novice teachers aurally, but also visually. Both aspects of the experts’ presentations are more refined. This difference between experts and novices lies perhaps in the visual/verbal presentation itself, since the specific words used by the teachers were not distinctly different, as evidenced by the data found in the transcript-only condition. However, the overall differences shown in Table 1 clearly indicate that, even under the conditions of partial information, people can differentiate expert from novice teaching.

The relationship between rapport and effectiveness was found to be .85, a very high correlation between two dependent measures. It is suspected that these numbers are so closely aligned because the evaluators were not differentiating between these two variables. The qualitative comments would seem to substantiate this claim, since many of the same remarks appear under both headings, sometimes by the same reviewer. Comments regarding eye contact, effectiveness of gestures/conducting style, and perceived connection of teacher to choir are among those that frequently appear to describe both rapport and effectiveness. Potential causes for this conflation of the two concepts are that the evaluators made no distinction between rapport and effectiveness when reporting their impressions of the teachers, or that a strong relationship actually exists between the concepts.

As with the relationship between rapport and effectiveness, the qualitative and quantitative results consistently mirror each other. Both methods of analysis show that experts were evaluated more positively than novices, and that more specific comments regarding nonverbal behaviors occur in the video and audio-visual conditions. Further, under the transcript-only condition, the expert teacher working with the novice choir received the highest quantitative scores as well as consistently positive qualitative comments.

Qualitative analysis of the transcript-only condition implies that the evaluators with the least amount of information regarding nonverbal behaviors made the least accurate evaluation of the teachers’ abilities. If the evaluators in the other three conditions are believed to be accurate in their assessments, then the transcript-only evaluators who scored the novice higher than the expert were hampered by their lack of information on the teachers’ nonverbal behaviors and/or the context of the setting. Further, the lack of evidence of the expert teacher’s abilities in the transcript-only condition can lead one to informative conclusions regarding how an expert teacher works with an advanced choir. The evaluation of the expert teacher/advanced choir transcript would indicate that she needed to explain herself to the choir the least, that she was able to rely heavily on nonverbal cues to communicate her directions.

Table 2 clearly shows that the evaluators in the visual-only condition commented more on the nonverbal aspects than the other conditions. Evaluators in the audio and visual condition were fairly balanced in their commentary of verbal to nonverbal observations. As might be expected, students in the transcript-only and audio-only conditions made few nonverbal observations. These results were not unexpected; what perhaps is surprising is that evaluators in the audio-only and transcript-only condition commented at all about the teachers’ nonverbal behaviors, and that evaluators in the visual-only group made up to 91% of their comments regarding nonverbal behaviors.
The purpose of the present study was to determine if a relationship exists between skilled and novice music teachers’ nonverbal behaviors and their perceived effectiveness and rapport with students. Clearly, there is a strong relationship showing that skilled teachers have developed many more appropriate nonverbal behaviors, increasing both their rapport with their students and their teaching effectiveness, while neither of these characteristics are as evident in the novice teachers’ performance. Messages sent nonverbally play an important role in how teachers are perceived, and therefore constitute an important part of educational practice. Thus, one might conclude that they should be an important component of any teacher training program as well.

REFERENCES